

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
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SEP

5 2008

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

Applicant's or agent's file reference

FOR FURTHER ACTION

See paragraph 2 below

58086-242185

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US07/07485

27 March 2007 (27.03.2007)

27 March 2006 (27.03.2006)

International Patent Classification (IPC) or both national classification and IPC

IPC: Please See Continuation Sheet

USPC: 514/341,385;548/301.4,311.1,316.7;546/272.7,274.1,274.4

Applicant

MICHAEL JUNG

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Date of completion of this opinion 27 August 2008 (27.08.2008)	Authorized officer Jason M. Nolan, Ph.D. Telephone No. (571) 272-4356
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Form PCT/ISA/237 (cover sheet) (April 2007)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US07/07485

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of:

- a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

- b. format of material

- ☐ on paper
☐ in electronic form

- c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in electronic form.
☐ furnished subsequently to this Authority for the purposes of search.

4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

**WRITTEN OPINION OF THE
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International application No.
PCT/US07/07485

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>3,4,11,13,16,37</u>	YES
	Claims <u>1,2,5-10,12,14,15,17-36</u>	NO
Inventive step (IS)	Claims <u>3,4,11,13,16,37</u>	YES
	Claims <u>1,2,5-10,12,14,15 and 17-36</u>	NO
Industrial applicability (IA)	Claims <u>1-37</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1, 5, 7-10, 12, & 17-36 lack novelty under PCT Article 33(2) as being anticipated by SUN et al. because the publication by SUN et al. discloses compounds which anticipate the instant formula II wherein A & B = O; Het = pyridine; R1 & R2 form a substituted heterocyclic ring; R3 = H; R4 = CN; R5 = Cl; and R6 & R7 = H. Further, the compounds of SUN et al. are androgen receptors useful for the treatment of diseases acting via said receptor.

Claims 1, 2, 6-9, 12, 14, 15, & 17-36 lack novelty under PCT Article 33(2) as being anticipated by STROBEL et al. because the publication by STROBEL et al. discloses compounds which anticipate the instant formula II wherein A & B = O; Het = pyridine or 5-membered rings with N & S or multiple N; R1 = substituted alkyl; R2 = H or alkyl; R3 = alkyl. Said compounds are useful for treating cancer.

Claims 1, 7-9, 12, & 17-36 lack novelty under PCT Article 33(2) as being anticipated by MOON et al. because shown the publication by MOON et al. discloses compounds that anticipate the instant formula II wherein A = S; B = O; Het = pyridine; R3 = H; and R1 & R2 form a substituted heterocyclic ring. Said compounds are useful for treating cancer.

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INTERNATIONAL SEARCHING AUTHORITY

International application No.
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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of IPC:

A61K 31/4166(2006.01),31/4178(2006.01),31/4439(2006.01);C07D 401/04(2006.01),233/86(2006.01)